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Part II

Department of Labor

Mine Safety and Health Administration

Respirable Dust; and Ventilation System and Methane and Dust Control Plan

DEPARTMENT OF LABOR

Mine Safety and Health Administration

30 CFR Parts 11, 70, 71, 75 and 90

Respirable Dust

AGENCY: Mine Safety and Health Administration, Department of Labor.

ACTION: Final rule.

SUMMARY: The Department of Labor's mandatory health standards, Title 30, Code of Federal Regulations, Part 70 are amended as to the definition of respirable dust and the procedures for sampling respirable dust in underground coal mines. These amendments include revised requirements for certification of persons conducting sampling of respirable dust and calibrating sampling equipment. Sampling of respirable dust in the active workings outby the working face is required in addition to sampling at the working face. This rule also amends Parts 11, 71, 75 and 90. The definition of respirable dust in each of these parts is amended to be consistent with Section 202(e) of the Federal Mine Safety and Health Act of 1977 (Act).

EFFECTIVE DATES: April 8, 1980: 30 CFR §§ 11.3(ee), 70.2(n), 71.2(n), 75.2(k) and 90.2(g). November 1, 1980: Part 70.

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SUPPLEMENTARY INFORMATION:

I. Rulemaking Background

On November 16, 1977, the Mining Enforcement and Safety Administration (MESA), Department of the Interior, published in the **Federal Register** (42 FR 59294–59300) a notice proposing amendments to Part 11 of Subchapter B and Parts 70, 71, 75 and 90 of Subchapter O, Chapter I, Title 30, Code of Federal Regulations. The proposed amendments pertained to respirable dust and airborne contaminants. Interested persons were afforded 30 days after publication of the proposed amendments within which to submit written comments and objections to the amendments proposed by the Secretary of the Interior and to request a public hearing on the issues raised. Numerous requests for extension of the time within which to respond were received from operators, organizations representing operators and other interested parties. By publication in the **Federal Register** for January 5, 1978 (43 FR 979), the time for submission of comments, objections and requests for public hearing was extended to February 28, 1978.

Under the Federal Mine Safety and Health Act of 1977 (Act), the responsibilities of the Secretary of the Interior under Section 101 of the Federal Coal Mine Health and Safety Act of 1969 (Coal Act), Pub. L. 91–173, were transferred to the Secretary of Labor (Secretary) on March 9, 1978. Rulemaking, commenced by the Department of the Interior under the Coal Act, was continued by the Department of Labor.

The written comments and objections received in response to the proposed amendments published by the Secretary of the Interior included several requests for public hearing. The comments and objections received concerning respirable dust raised issues substantially different in nature from the issues raised by the comments and objections concerning airborne contaminants. In the interest of giving due consideration to the issues raised, the Mine Safety and Health Administration (MSHA) determined that separate public hearings should be held on the amendments concerning respirable dust and airborne contaminants. Notice of three public hearings on the amendments concerning respirable dust were announced in the **Federal Register** on June 20, 1978 (43 FR 26454). Two additional public hearings were announced in the **Federal Register** on July 7, 1978 (43 FR 29339). All five public hearings were conducted as scheduled between July 11 and July 28.

II. Summary of the Rule

A. Respirable Dust Standards

Respirable dust is defined by this rule as dust collected with a sampling device approved by the Secretary of Labor (or the Secretary of the Interior under the Coal Act) together with the Secretary of Health, Education, and Welfare in accordance with Part 74 of Title 30, code of Federal Regulations. This amendment to the definition of respirable dust is consistent with section 202(e) of the Act. There, Congress revised the 1969 Coal Act definition of respirable dust to be that dust measured with a device approved by the Secretary and Secretary of Health, Education, and Welfare. This congressionally revised definition is based on the performance characteristics of sampling devices which are approved, rather than a description of the characteristics of respirable dust. The final rule definition of respirable dust is also based on approved sampling devices.

The fundamental requirement of the rule is that the average concentration of respirable dust in the mine atmosphere during each shift to which each miner in the active workings of a mine is exposed be continuously maintained at or below 2.0 milligrams of respirable dust per cubic meter of air (2.0 mg/m^3). The respirable dust standard of 2.0 mg/m^3 will be lowered, however, when the respirable dust in the mine atmosphere of the active workings contains more than 5 percent quartz. Under such conditions, the operator is required to continuously maintain respirable dust at or below an average concentration less than 2.0 mg/m^3, computed by dividing the percentage of quartz into the number 10. As the quartz content of respirable dust present in the mine atmosphere increases over 5 percent, the respirable dust standard is correspondingly reduced. This method of determining the applicable respirable dust standard when quartz is present is prescribed by the Secretary of Health, Education, and Welfare (HEW). Samples for determining the quartz content of respirable dust present in the mine atmosphere will be analyzed by MSHA. If the quartz content exceeds 5 percent, MSHA will apply the formula set forth in the rule and notify the operator of the respirable dust standard applicable at the mine.

A respirable dust standard for the intake air for working sections is also provided by this rule. Each operator is required to continuously maintain the average concentration of respirable dust in intake airways within 200 feet of the working faces at or below 1.0 milligrams of respirable dust per cubic meter of air.

The respirable dust standards for active workings and intake airways are based on measurements with an MRE instrument (gravimetric sampling device with four channel horizontal elutriator.) Therefore, when an approved sampling device is used for sampling, the concentration of respirable dust measured with the approved device will be converted by MSHA to an equivalent concentration of respirable dust as if measured with an MRE instrument. This conversion is accomplished by multiplying the concentration of respirable dust measured with the approved sampling device by the constant factor prescribed by the Secretary for that approved sampling device.

B. Respirable Dust Sampling

1. *Designated occupation and designated area sampling.* Each operator is required to collect respirable dust samples and submit the samples to MSHA for analysis to determine

compliance with the respirable dust standard. The rule specifies two different types of respirable dust samples to be collected and submitted by operators.

The first type of sample is a "designated occupation sample" for each "mechanized mining unit" in the mine. A mechanized mining unit is a unit of mining equipment that a production crew utilizes for the extraction of material. For example, a mechanized mining unit for a continuous mining system would typically consist of two shuttle cars, a roof bolting machine and a continuous mining machine. Designated occupation samples are taken in the environment of the occupation in the mechanized mining unit that is exposed to the greatest concentration of respirable dust. In the continuous mining system the occupation exposed to the greatest concentration of respirable dust generally is the continuous mining machine operator. Accordingly, this occupation would be the subject of the designated occupation sample for that mechanized mining unit. The rule sets forth the job position in most mining systems on which designated occupation samples are required to be taken, unless otherwise directed by the District Manager. The rule allows designated occupation samples to be taken by having the miner in the designated occupation wear the sampling device or by placing the sampling device at specified locations near the miner's normal work position. Mechanized mining units will be assigned an identification number by MSHA. These identification numbers are retained by the mechanized mining unit, regardless of where it relocates in the mine. When two sets of mining equipment are provided in a series of working places in the mine and only one production crew is employed at any given time on either set of mining equipment the two sets of equipment will be identified as a single mechanized mining unit. However, when two or more mechanized mining units are simultaneously engaged in production within the same working section, each such mechanized mining unit will be separately identified.

The second type of respirable dust sample required under this rule is a "designated area sample." Designated area samples are required to be collected at locations appropriate to best measure concentrations of respirable dust associated with dust generation sources in the active workings of the mine, such as along haulageways, at underground crushers, or at transfer points. The operator's approved ventilation system and methane and dust control plan, required under 30 CFR 75.316, is required by this rule to also show the specific locations in the mine designated for taking area samples. An amendment to 30 CFR 75.316 conforming to this requirement is published in Part II of today's **Federal Register**. Area samples are collected by placing an approved sampling device in a specific location in each area designated in the approved ventilation system and methane and dust control plan. Each designated area will be assigned an identification number by MSHA.

2. *Bimonthly sampling cycle.* Designated occupation samples for mechanized mining units and designated area samples are each required to be collected and submitted by operators at bimonthly intervals. The rule provides a separate schedule of bimonthly periods for each of the two types of samples. For example, during the period January 1 through February 28, operators are required to collect and submit designated occupation samples for each mechanized mining unit. The corresponding period for collecting and submitting designated area samples is February 1 through March 31. The bimonthly periods are staggered to reduce the burden of sampling on operators and to enable MSHA to quickly analyze respirable dust samples.

During each bimonthly period for sampling of mechanized mining units, operators are required to collect and submit five samples for each mechanized mining unit. Based on these samples, MSHA will make a determination as to compliance with the applicable respirable dust standard under this rule. During each bimonthly period for designated area sampling, operators are required to collect and submit one sample for each designated area, as described in the operator's approved ventilation system and methane and dust control plan. If a respirable dust sample taken from a designated area exceeds the applicable respirable dust standard, MSHA will notify the operator. The operator will then be required to submit five additional samples collected from that designated area within 15 calendar days. Based upon these samples, MSHA will make a determination as to compliance with the applicable respirable dust standard. MSHA will also make compliance determinations based on occupation samples taken by MSHA inspectors.

When there is a change in the operational status of a mine, a mechanized mining unit or a designated area that affects these respirable dust sampling requirements, the operator is required to report such status change to the District Manager. Under this rule, status change reports are required to be made in writing within 3 working days after the status change occurs. When the respirable dust standard applicable at a mine is changed due to the presence of quartz, bimonthly sampling of mechanized mining units and designated areas is required to begin on the first production shift of the next full bimonthly period after the operator is notified by MSHA of the revised respirable dust standard.

To satisfy the bimonthly designated occupation and designated area sampling requirements of this rule, operators are required to take "valid respirable dust samples." These are defined as respirable dust samples collected and submitted as required by this part, and not voided by MSHA. Samples not collected and submitted in accordance with all requirements of this rule may be voided by MSHA. Voided or invalid samples will not satisfy the bimonthly sampling requirements, and therefore it may be necessary for an operator to collect and submit additional samples during a bimonthly period. Failure to take the required number of valid respirable dust samples within a bimonthly period would constitute a violation. Therefore, it is advantageous for operators to collect and submit the samples required for each bimonthly period during the first month of the bimonthly period. This would allow ample opportunity to collect and submit additional samples if necessary. Respirable dust samples received by MSHA in excess of the number required by this part will be considered invalid samples.

3. *Sampling method.* All respirable dust samples collected by operators for purposes of this rule are required to be collected with a sampling device approved by the Secretary (or the Secretary of the Interior under the Coal Act) and the Secretary of Health, Education, and Welfare under Part 74 of Title 30, Code of Federal Regulations. Approved 10 millimeter cyclone sampling devices are required to be operated at a flowrate of 2.0 liters of air per minute. Other sampling devices that may be approved in the future will be required to be operated at the flowrate prescribed by the Secretary of Health, Education, and Welfare.

The rule also prescribes minimum mining activity that must be ongoing during sampling. Designated area samples are required to be collected

during a "production shift." A production shift is defined for purposes of designated area sampling as a shift during which material is produced and routine day-to-day activities are occurring in the designated area. Similarly, designated occupation samples for mechanized mining units are required to be collected during a "normal production shift." A normal production shift is defined as a shift during which the amount of material produced in a mechanized mining unit is at least 50 percent of the average production reported for the last set of five valid samples. If a normal production shift is not achieved, the sample for that shift may be voided by MSHA. However, any designated occupation sample with a respirable dust concentration greater than 2.5 milligrams per cubic meter of air will be used to determine the average concentration of respirable dust for that mechanized mining unit, regardless of production. The rule also requires that sampling devices be operated portal to portal. This means that the sampling devices used by the operator are required to be operated while carried into the mine, during the entire shift or for 8 hours, whichever time is less, and while carried out of the mine.

C. Transmittal and Analysis of Samples

After the end of a sampling shift, the operator is required to transmit all samples collected to MSHA within 24 hours. All respirable dust samples collected by an operator are deemed by this rule to be taken to fulfill the sampling requirements of Parts 70, 71 or 90 of Title 30, Code of Federal Regulations, unless the operator declares in writing to the District Manager prior to the intended sampling shift that the sampling filter cassettes are to be used for other purposes. Therefore, absent such a written declaration by the operator to the District Manager, all respirable dust samples collected by an operator are required to be submitted to MSHA within 24 hours after the end of the sampling shift.

Each sample transmitted by operators to MSHA is required to be accompanied by the appropriate completed dust data card. Data cards are provided by the filter cassette manufacturer, and each card has an identification number which corresponds with the filter cassette for which it is provided. All dust data cards submitted to MSHA are required to be completed and signed by a person certified to collect samples and must include that person's certification number.

Upon receipt, MSHA will analyze samples submitted by operators as quickly as practicable. Following this analysis, MSHA will provide the operator with a respirable dust sample data report. The data report will include identification of the mechanized mining unit or designated area in the mine from which the samples were taken; the concentration of respirable dust for each valid respirable dust sample; the occupation code, where applicable; and the reason for voiding any samples. Upon receipt, the operator is required to post this data report for at least 31 days on the mine bulletin board.

D. Enforcement of Respirable Dust Standards

MSHA will make determinations as to compliance with the applicable respirable dust standard under § 70.100(a) or § 70.101 of this rule based on the bimonthly samples taken from each mechanized mining unit. If the samples from a mechanized mining unit show respirable dust concentrations in excess of the applicable standard, the operator will be cited for a violation. MSHA will also determine compliance with the applicable respirable dust standard based on designated area samples. However, if a bimonthly designated area sample shows a respirable dust concentration in excess of the applicable standard, the operator will first be instructed by MSHA to take five additional valid respirable dust samples for that area within 15 calendar days. If these designated area samples show an average concentration of respirable dust in excess of the applicable standard, the operator will be cited for a violation. In addition, the operator may be required to revise the ventilation system and methane and dust control plan for the mine relative to that area.

Upon issuance of any citation for violation of § 70.100(a) or § 70.101 and until abatement of the violation is achieved, the usual bimonthly sampling requirements of this rule will not apply to the affected mechanized mining unit or designated area. During the time for abatement fixed in the citation, the operator is required to take corrective action to lower the concentration of respirable dust in the affected mechanized mining unit or designated area and then sample each production shift until five valid respirable dust samples are taken. Abatement of the violation will be determined on the basis of the first five valid respirable dust samples submitted during the abatement period.

Under this rule, valid respirable dust samples collected and submitted during the abatement period may also be credited to the bimonthly sampling requirements. This will occur only when a violation is abated, and if, during abatement sampling, valid respirable dust samples are collected by the operator and received by MSHA in a bimonthly period after which the violation occurred. For example, if, based on samples submitted for a designated occupation during the bimonthly period of July 1 through August 31, MSHA determines that a violation occurred and issues a citation on August 25, the operator would be required to take corrective action and then take five valid samples for the designated occupation during the period fixed for abatement. If, after corrective action, the operator takes abatement samples during the end of August and the beginning of September, the start of the next bimonthly period for designated occupation sampling, then the valid respirable dust samples taken by the operator and received by MSHA during September would be credited to the bimonthly sampling requirements for the period September 1 through October 31. In the event that during abatement sampling less than five valid respirable dust samples were taken by the operator and received by MSHA during September, it would be necessary for the operator to submit the additional number of valid respirable dust samples necessary to satisfy the bimonthly sampling requirements for September 1 through October 31.

E. Certified Persons

Proper maintenance, calibration and use of sampling equipment are essential for operators to meet the sampling requirements of this rule. Accordingly, these tasks are required to be done only by persons certified under this rule. The rule provides a certification for maintaining and calibrating sampling equipment and a certification for conducting sampling. Persons may hold one or both of these certifications. Temporary certification of persons is provided by the rule, pending prompt completion of the certification requirements.

1. *Maintaining and calibrating respirable dust sampling equipment.* To be certified in maintenance and calibration, persons are required to pass the MSHA examination on maintenance and calibration procedures.

The essential maintenance requirement of the rule is that approved sampling devices be maintained in a condition such that they will perform as approved under Part 74 of Title 30, Code of Federal Regulations. Accordingly, each operator should have a rigorous

and regularly scheduled maintenance program for sampling devices used for purposes of this rule. Approved sampling devices are required to be calibrated in accordance with MSHA Informational Report No. 1121, "Standard Calibration and Maintenance Procedures for Wet Test Meters and Coal Mine Respirable Dust Samplers (Supersedes IR 1073)." The rule also provides that coal mine personal sampler units be calibrated at the flowrate of 2.0 liters of air per minute before being put into service and at intervals not to exceed 200 hours of operating time. A calibration mark is required to be placed on the flowmeter of personal sampler units to indicate the proper position of the float when the sampler is operating at its approved flowrate. The proper flowrate is indicated when the lowest part of the float is tangent to the top of the calibration mark.

2. *Collecting respirable dust samples.* To be certified to collect respirable dust samples for purposes of this rule, persons are required to pass MSHA examination in sampling of respirable coal mine dust.

Careful examination and testing of respirable dust sampling devices are required immediately prior to the start of a shift during which samples will be collected for purposes of this rule. The required examination and testing may be done by a person holding either of the certifications provided by the rule and includes testing the battery voltage and examining all external components of the sampling devices to be used. Any necessary external maintenance to assure the sampling devices are clean and in proper working condition is required to be performed at this time by a certified person.

Examination of each sampling device is also required at least twice during the sampling shift. This examination is required to be done only by a person certified to collect samples. The first examination is required to be made during the second hour after the sampling devices are put into operation. This examination is to assure that each sampling device is operating properly and at the proper flowrate. Any necessary adjustment in the flowrate of a sampling device is required to be made at this time by the person certified to collect samples. The second examination is required to be made during the last hour of operation of the sampling devices during the shift. If the proper flowrate has not been maintained, the sample is required to be transmitted to MSHA with a notation made by the certified person indicating an improper flowrate.

III. Discussion of Major Issues

General

The predominant objection to the proposed rule expressed by miners and their representatives was the lack of effective miner participation in the respirable dust sampling program. Commenters repeatedly asserted that the absence of miner participation seriously compromised the sampling program.

Significant miner participation in the respirable dust sampling program was not a part of the proposed rule. Therefore, while miner involvement has been strongly advocated by some, not all interested persons have been afforded an opportunity to comment on such an addition to the sampling program. Accordingly, miner participation is not incorporated in this final rule. However, in response to the substantial number of comments recommending miner participation, MSHA is proposing amendments to this final rule which would require operators to provide miners an opportunity to observe sampling, maintenance and calibration procedures, and to observe the transmittal of samples to MSHA. These proposed revisions to the final rule are set forth in this **Federal Register.** Similar miner involvement is included in the proposed revisions to the existing respirable dust sampling program for surface coal mines and surface areas of undergound coal mines, 30 CFR Part 71, and the sampling program for miners who have evidence of the development of pneumoconiosis, 30 CFR Part 90, which are also published in this **Federal Register.**

During the course of the public hearings, MSHA was urged to accept the use of a particular type of personal protective device as a means of compliance with the respirable dust standard in certain longwall mining operations. It was argued that in these operations it has not been proven feasible at this time to institute engineering controls adequate to reduce dust to within permissible concentrations without substantially impairing coal production. MSHA has begun a careful study of the device—known as the "airstream helmet"—to determine its potential usefulness under very limited circumstances. It is currently being field tested under close MSHA scrutiny in a coal mine in New Mexico. Until testing is completed and the results evaluated, MSHA will continue to require implementation of engineering controls in coal mines as the means of achieving compliance with the applicable dust standard.

A significant number of the miners who appeared at the public hearings on this rule stated that they and many of their fellow miners are reluctant to fully cooperate in the respirable dust sampling program because they fear that the sampling results will be used by coal operators as evidence to defeat possible future Federal or State black lung benefits claims. This issue has previously been raised by miners' representatives with MSHA and its predecessor, MESA, and with the Employment Standards Administration of the Department of Labor, which administers the Department's black lung benefits programs. In August of 1973 and again in June of 1978, the administrators of the Department's black lung benefits program, in letters to representatives of the United Mine Workers of America, gave assurances that individual dust sampling results could not alone provide a sufficient basis for denying benefits. MESA and MSHA have provided similar assurances. A recent informal review of federal black lung benefits cases shows that sampling results have been intoduced into the record in only a very few cases and that in no case were these results relied upon to deny a claimant benefits. Despite these facts, concern appears to persist among some miners that the dust sampling program may jeopardize future benefits. The final rule therefore includes two changes in the existing operator respirable dust sampling program to reduce the likelihood of such samples being introduced as evidence in black lung benefits cases.

First, under the final rule, the existing requirement that each working miner be sampled every six months or every four months, depending on the miner's work assignment, has been deleted. The results of these samples were not used for enforcement of the respirable dust standard, but were solely for the purpose of supplying the Department of Health, Education, and Welfare (HEW) with data for research concerning black lung disease. This aspect of the existing operator sampling program resulted in a large number of samples and in the few cases where sampling results have been introduced as evidence in black lung benefits cases, it has most often been the results of these samples. Therefore, eliminating these samples should greatly reduce the use of sampling results in these cases. MSHA and NIOSH will assure that suitable substitute investigations will be conducted so that research concerning black lung disease can be continued.

The second change in the existing operator sampling program implemented by the final rule is removal of miners' social security numbers from MSHA's report of sampling results. Under the existing program, MSHA's computer print-out of sampling results was sent to the operator and included, among other things, the occupation and social security number of the miner sampled, the date of the samples and the amount of respirable dust collected. This computer print-out has in the past been introduced as evidence in black lung cases. However, with the removal of miners' social security numbers from MSHA's computer print-out report to operators, correlation of sampling results with individual miners by MSHA will be eliminated. MSHA believes these changes are responsive to the miners' concern that the dust sampling program may jeopardize future black lung benefits.

Section 70.2

Based on several of the comments received, the term "normal production shift" is defined by the final rule as a shift during which the amount of material produced is at least 50 percent of the average production reported for valid sampling shifts constituting the previous bimonthly series of samples submitted by the operator. This is a change from the proposed rule which specified 60 percent production. The 50 percent production criterion requires sampling in environments which are typical of workers' normal dust exposure while providing sufficient flexibility to account for normal fluctuations in the mining process.

Commenters also suggested that the definition of respirable dust should include a particle size limitation. The final rule defines respirable dust as dust collected wtih sampling device approved by the Secretary and the Secretary of Health, Education, and Welfare. This definition is consistent with the definition of respirable dust in section 202(e) of the Act. Approvals for devices issued by the Secretary of the Interior and Secretary of HEW under the Coal Act and Part 74 of 30 CFR are continued in effect by virtue of the provisions of the Federal Mine Safety and Health Amendments Act of 1977.

The previous definition of respirable dust prior to the 1977 Act was "only dust particulates 5 microns or less in size" (30 CFR 70.2(i)). This definition was based on an incorrect interpretation of the original definition of respirable dust developed by the British Medical Research Council (BMRC). According to the BMRC, "a selective size sampling device meeting these requirements would have a 50 percent sampling efficiency for 5 micron spherical particles of unit density, and an absolute cut-off for similar particles of size greater than 7.1 (micron) diameter." The MRE device was designed according to the BMRC definition, and used in the epidemiological studies upon which the 2.0 mg/m³ dust standard in the 1969 Coal Act was based (Jacobson, Rae, Walton and Rogan, 227 Nature 445–47 (1970)).

By prescribing the 5 micron diameter as the absolute cut-off, rather than the 50 percent efficiency diameter as determined by the BMRC, the previous definition of respirable dust was rendered incompatible with the performance of the MRE instrument or any other instrument for sampling respirable dust. Consequently, the Interior Board of Mine Operations Appeals determined that citations based upon this definition were unenforceable. (*Eastern Associated Coal Corporation* (On Reconsideration), 7 IBMA 14 (Sept. 30, 1976) (83 I.D. 425)).

To retain a definition of respirable dust based on a 5 micron particle size limitation would perpetuate these problems. Congress recognized this potential and in the 1977 Act defined respirable dust in terms of approved sampling devices. This same concept is adopted in the final rule which defines respirable dust as dust collected with an approved sampling device.

Alternatives suggested by commenters to this instrument-based statutory definition were the BMRC definition of respirable dust and the definition adopted by the American Conference of Governmental Hygienists (ACGIH). Implementing these alternatives, however, would require substantial data development to convert the dust specified by these definitions either to the original coal worker's pneumoconiosis (CWP) epidemiological measurements made in MRE instruments or to the measurements made with presently approved sampling devices. Under the final rule, measurements made with approved samplers are related to measurements made with an MRE instrument by the conversion factor of 1.38. This links respirable dust samples taken with an approved device to the epidemiological studies on CWP. Since the record does not contain any data on the necessary conversion factor for the BMRC or ACGIH respirable dust definitions, these alternative definitions cannot be implemented at this time.

Although the BMRC or ACGIH definitions of respirable dust cannot be made part of this final rule, NIOSH has announced studies to develop the necessary data. In addition, MSHA and NIOSH will be reviewing 30 CFR Part 74 under which sampling devices are approved. A new procedure for approving sampling devices under Part 74 would be necessary if the BMRC or ACGIH definitions of respirable dust should be adopted.

Section 70.100

Commenters questioned whether a standard of 2.0 milligrams of respirable dust per cubic meter of air should be retained. The respirable dust standard of 2.0 mg/m³ was originally established in the 1969 Coal Act and is retained in the 1977 Act. This average concentration limit for coal mine dust was initially based upon studies conducted in Great Britain. Those studies showed that the probability of developing pneumoconiosis decreases with decreasing exposure to respirable dust concentrations. Data relied on in the studies indicated that the expected incidence of miners contracting simple pneumoconiosis would be 5 percent at respirable dust concentrations of 3.0 mg/m³ and 2 percent at 2.0 mg/m³. British data further indicated that the probability of developing massive fibrosis, or complicated pneumoconiosis, also significantly decreases with decreasing exposure to respirable dust concentrations. S. Rep. No. 91–411, 91st Cong., 1st Sess. 16 (1969). The final rule therefore retains a respirable dust standard of 2.0 mg/m³. It should be noted, however, that the respirable dust standard is lower when the mine atmosphere of the active workings contains greater than 5 percent quartz.

A few of the comments received also indicated confusion over whether compliance with the 2.0 mg/m³ respirable dust standard is based on a time weighted average. Respirable dust sampling under this rule is conducted during production shifts. Sampling devices are required to be operated for the entire shift or for 8 hours, whichever time is less. The total respirable dust collected by a sampling device is then averaged over the time the sampler was operated, in other words, a time weighted average. Compliance determinations are made on the basis of this average concentration of respirable dust collected during the shift.

Several commenters objected to retaining the intake air standard for respirable dust of 1.0 milligrams per cubic meter of air. The purpose of this intake air standard is to assure that the air ventilating working faces is sufficiently uncontaminated to assist in controlling respirable dust at the working faces. No new data have been introduced demonstrating a need for

change in this standard and therefore it is retained in the final rule. It was proposed, however, that operators no longer regularly submit intake air samples to MSHA. This proposal is retained under the final rule and MSHA will sample intake air to monitor compliance with the standard.

Section 70.101

A substantial number of comments were received objecting to the proposed respirable dust standard when free silica is present in the active workings of the mine atmosphere. Many of the comments addressed the validity and appropriateness of the NIOSH recommendation, questioning both the data upon which it was based and the methodologies used to arrive at the 50 microgram recommendation. The proposed rule would have required the average concentration of respirable dust to be reduced below 2.0 milligrams per cubic meter of air when the free silica present exceeded .050 milligrams per cubic meter of air, converted to an MRE measurement equivalent of .070 milligrams per cubic meter of air. This proposal was based upon the recommendation made by the National Institute for Occupational Safety and Health (NIOSH) in its 1974 criteria document indicating that workers should not be exposed to levels greater than 50 micrograms of free crystalline silica per cubic meter of air. For the reasons discussed below, MSHA has decided to withdraw this proposed standard at this time pending further action by NIOSH. The final rule retains the existing formula for reducing the respirable dust standard when respirable dust in the mine atmosphere contains greater than 5 percent quartz.

Adopting a standard for free silica which will assure the protection of all workers from lung disease is of paramount concern to the Department of Labor. Both MSHA and OSHA have placed a high and immediate priority on the development of an appropriate silica standard. It is also important for both agencies to coordinate their respective rulemaking activities to the extent possible, particularly where important common hazards exist. Although each agency has an independent statutory mandate and a separate responsibility to develop improved safety and health standards, there are compelling reasons for MSHA to deter final revision of the silica standard at this time.

The proposed rule was published under the Coal Act which required the Secretary of Health, Education, and Welfare (HEW) to develop proposed health standards for the coal mining industry. However, the NIOSH criteria document used to develop the proposed rule was prepared in response to the HEW mandate to develop criteria dealing with toxic materials under section 20(a)(3) of the Occupational Safety and Health Act of 1970. The criteria document states that the recommended standard was intended to apply to the "processing, manufacture, and use of free silica as applicable under the Occupational Safety and Health Act of 1970."

The 1977 Act for the first time brought the protections of a single law to all miners. MSHA has a responsibility in critical areas such as health, to examine hazards that are common to the coal and metal and nonmetal mining industries in a coordinated manner. Even if separate or different standards eventually emerge from the review of a common hazard, there must be a thorough evaluation of all relevant considerations, and possible common solutions to common problems must be fully explored. MSHA believes it is particularly important to adopt this approach for subject matters such as silica exposure. The risk to metal and nonmetal miners as a whole appears to be at least as serious as the risk to coal miners and much of the pertinent scientific data has been derived from studies of noncoal miners.

MSHA believes that it is appropriate to defer action on the proposed silica standard until it receives from NIOSH a criteria document specifically addressing the silica exposure hazard in mining. NIOSH is currently developing such a criteria document. This should provide MSHA with valuable information not only concerning the proposed revision of the permissible exposure limits, but other equally important matters such as sampling procedures, medical examinations of exposed workers and warning signs and labels.

It should be noted that in addition to the NIOSH criteria document, the record in this rulemaking proceeding contains the results of a number of research efforts aimed at determining the effects of the various components of coal mine dust on the development of chronic obstructive lung disease in coal miners. Although there is strong indication that the contents of the dust inhaled as well as the concentration is a factor in the formation of fibrotic lung tissue and in the development of pulmonary massive fibrosis, these studies are not conclusive. Congress took cognizance of this potentially increased health hazard when it provided in section 205 of the Coal Act and the 1977 Act for a reduced respirable dust standard when the respirable dust in the mine atmosphere contains more than 5 percent quartz, which is retained in the final rule.

Several comments received requested information regarding MSHA procedures for determining the quartz content of respirable dust for purposes of this rule. These procedures are basically set forth in Bureau of Mines Information Circular No. 8545, "Bureau of Mines Procedure for Evaluating Quartz Content of Respirable Coal Mine Dust," 1972. The procedures set forth in this document have been slightly modified since publication. Upon request, interested persons may obtain complete information on updated MSHA procedures from the MSHA Dust Branch, Health Division, Technical Support Center, 4800 Forbes Avenue, Pittsburgh, Pennsylvania 15213.

Section 70.201

Several commenters suggested that respirable dust sampling under this rule be done with sampling devices that can be mounted on mining machinery and give a continuous readout of dust concentrations. Commenters recognized that unlike the currently approved sampling devices, such as the Mine Safety Appliances Monitaire Model G or C–115 and Bendix 3900 Micronair, further technological development is necessary before continuous readout devices can be reliably used to monitor dust in the mines. However, MSHA believes that every effort should be made to advance sampling technology and has embarked on an intensive program to develop a reliable machine-mounted continuous dust monitor. Prototypes have been developed and are currently being tested in several mines. In addition, the Bureau of Mines is pursuing research in this area.

Sections 70.202 and 70.203

Respirable dust sampling and the maintenance and calibration of sampling devices are required to be done by persons certified under this rule. The distinction in the proposed rule between "certified" and "qualified" persons has been deleted to avoid confusion. Certification under the final rule is achieved by successfully completing the applicable MSHA examination. A separate certifying examination is provided for respirable dust sampling and for maintenance and calibration of sampling equipment. In response to comments received, the proposed requirement of also completing the applicable MSHA course of instruction prior to taking a certifying examination has been deleted. Although other sources of training are encouraged, MSHA will offer courses of instruction

in both respirable dust sampling and the maintenance and calibration of sampling equipment. Persons seeking certification are urged to avail themselves of these courses. Scheduling information for MSHA training courses and examinations is available at MSHA District Offices.

The proposed requirement that persons certified to conduct respirable dust sampling have 12 months experience in underground coal mines has also been deleted from the final rule. The purpose of this requirement was to ensure that persons required by the rule to go underground were sufficiently familiar with safe work practices so as not to endanger themselves or other miners. However, since publication of the proposed rule, MSHA promulgated the final rule for training and retraining of miners to be codified at 30 CFR Part 48 (43 FR 47454 (October 13, 1978)). Under Part 48, persons conducting sampling will have to be trained in safe work practices. MSHA believes that such mandatory training obviates the need for the proposed 12 months experience requirement.

A few of the comments received asked whether it is necessary to require under this rule certification of persons previously certified or qualified by MSHA to conduct sampling and maintenance and calibration of sampling equipment. The requirement that sampling, maintenance and calibration be done only by persons certified under this rule is an integral part of improving the operator respirable dust sampling program. MSHA believes that certification through examination under this rule will ensure a basic level of competency with the substantially revised sampling requirements and procedures. In addition, MSHA believes that certification of persons under the final rule will improve sampling results through properly maintained and calibrated equipment. Temporary certification pending completion of the certification requirements is provided to alleviate any potential problem of accommodating all persons seeking certification under the final rule.

Several commenters also objected to the proposed requirement that persons be reexamined every two years in order to maintain their certification. MSHA is persuaded by the comments that this proposed requirement would not significantly improve the performance of certified persons in sampling, maintenance and calibration. Accordingly, this proposed requirement has also been deleted from the final rule. However, MSHA retains the right to revoke certifications if the sampling, maintenance and calibration procedures prescribed by this rule are not strictly adhered to by certified persons.

Section 70.204

The proposed maintenance and calibration requirements for approved sampling devices are not substantively changed in the final rule. A few commenters, however, objected to the sampling pump battery voltage requirement of the proposed rule. Commenters indicated that the proposed voltage requirement for nickel cadmium cell batteries would result in many adequate nickel cadmium cell batteries being removed from service. Accordingly, the proposed voltage requirement has been revised and the final rule requires that the voltage for nickel cadmium cell batteries not be lower than the product of the number of cells in the battery pack multiplied by 1.25. The voltage for other than nickel cadmium cell batteries is required to be not lower than the product of the number of cells in the battery pack multiplied by the manufacturer's nominal voltage per cell value.

Section 70.205

There are also no substantive changes in the proposed operation and flowrate requirements for approved sampling devices. Several comments questioned the need for requiring approved sampling devices to be examined during the second hour after being put into operation and during the last hour of operation. On-shift examination of sampling devices during the second hour of operation is required so that adjustment in the flowrate may be made to account for any surface charge acquired by the sampling pump battery during charging. Battery surface charge is common and dissipates after approximately one hour, often resulting in a reduction in the flowrate of the sampling device. If this occurs, prompt adjustment of the flowrate is necessary to achieve a valid respirable dust sample. On-shift examination of sampling devices during the last hour of operation is required to assure that the proper flowrate has been maintained during the sampling shift.

MSHA believes that these on-shift examinations of sampling devices are an important part of reasonable and prudent sampling techniques. However, several comments received from anthracite coal mine operators indicated that on-shift examination of sampling devices could be potentially dangerous under the conditions of mining an extremely pitching coal seam. Accordingly, under the final rule operators of anthracite coal mines are exempt from the requirement that the sampling device be examined during the second hour of operation when the device is being operated in the breast or chamber and the full box method of mining is used.

Section 70.206

The final rule provides that for purposes of compliance determinations, concentrations of respirable dust measured with an approved sampling device will be expressed in terms of equivalent concentrations as if measured with an MRE instrument. To accomplish this, the rule provides that concentrations of respirable dust measured with an approved device will be multiplied by a constant factor prescribed by the Secretary.

Several commenters questioned the requirement of converting concentrations of respirable dust measured with an approved sampling device to equivalent concentrations of respirable dust as measured with an MRE instrument. Congress in the 1969 Coal Act established respirable dust concentrations as measured with an MRE instrument as the standard for evaluating miner exposure to coal mine dust. Congress also recognized the potential for new technology and provided that other approved sampling devices could be used, so long as the concentration of respirable dust measured with such a device was equated to respirable dust concentrations as measured with an MRE instrument. This concept is not changed under the 1977 Act since the respirable dust standard as set forth in the 1969 Coal Act was carried over without change.

After passage of the Coal Act, the Secretary of the Interior and the Secretary of Health, Education, and Welfare approved a dust sampling device smaller and more practical than the MRE instrument. These samplers use a 10 millimeter cyclone to separate respirable dust from the total dust present in the mine atmosphere while the MRE instrument uses a four channel horizontal elutriator. In order to equate the concentrations of respirable dust measured with the 10 millimeter cyclone sampler to concentrations of respirable dust as measured with an MRE instrument, MSHA developed a constant conversion factor.

A few commenters questioned the constant factor of 1.38 specified in the proposal. This factor is based on data reported by Tomb *et al.* in Bureau of Mines Informational Report 7772, (1973), which is available from the Bureau of Mines, 4800 Forbes Avenue, Pittsburgh, Pennsylvania 15213. These data

demonstrated the need for revising the previously prescribed factor of 1.6 to 1.38 to account for the addition of a pulsation dampener to the 10 millimeter cyclone sampler. This improvement in the sampler was made part of its approval under 30 CFR Part 74. Accordingly, the constant conversion factor of 1.38 is adopted by the Secretary for 10 millimeter cyclone samplers already approved by the Secretaries. The final rule, however, does not state the 1.38 constant factor for converting concentrations of respirable dust as measured with a 10 millimeter cyclone sampler. This aspect of the proposed rule was deleted to allow for entirely different constant factors that may be prescribed for newly developed and approved sampling devices.

Sections 70.207 and 70.208

These sections of the final rule set forth the bimonthly sampling schedules for mechanized mining units and designated areas. Under the final rule, if the average concentration of respirable dust collected in five valid samples taken from a mechanized mining unit or a designated area exceeds the respirable dust standard applicable at the mine, the operator will be issued a citation and abatement of the unhealthful condition will be required. MSHA believes that these revised sampling procedures will be a significant improvement to the overall respirable dust sampling and control program. In addition, MSHA and NIOSH will be engaging in an assessment of the effectiveness of the new sampling scheme to determine if further improvements can be made.

Commenters have suggested that the rule should include a provision setting forth how the potential for variability in sampling results is accounted for in MSHA's determination of compliance with the respirable dust standard. MSHA recognizes that under this rule, or any sampling program, there may be some variation between the actual concentrations of respirable dust present in the mine atmosphere and the dust concentrations determined by sampling results. MSHA, however, believes that the final rule significantly reduces this variability. Compliance determinations will generally be based on the average concentration of respirable dust measured by five valid respirable dust samples taken by the operator during five consecutive shifts, or five shifts worked on consecutive days. Therefore, the sampling results upon which compliance determinations are made will more accurately represent the dust in the mine atmosphere than would the results of only a single sample taken on a single shift. In addition, MSHA believes the revised sampling and maintenance and calibration procedures prescribed by the final rule will significantly improve the accuracy of sampling results.

A few commenters, however, argued that the remaining potential variability in sampling results should be resolved by setting an artificial respirable dust standard in the rule, as high as 2.4mg/m^3. These commenters suggested that enforcement action should only be taken by MSHA when the average concentration of five valid respirable dust samples exceeds this higher standard. MSHA believes that such an accounting for variability in sampling results under the final rule would be contrary to congressional intent and the express congressional prohibition against average concentrations of respirable dust in the active workings exceeding 2.0 mg/m^3 over the course of a working shift.

The health risk for miners posed by respirable coal mine dust was first addressed at length by Congress in the 1969 Coal Act. In section 202(b)(2) of the Coal Act, which is retained in the 1977 Act, Congress provided in relevant part that "* * * each operator shall continuously maintain the average concentration of respirable dust in the mine atmosphere during each shift to which each miner in the active workings is exposed at or below 2.0 milligrams per cubic meter of air." It is important to emphasize that this statutory standard is expressed in terms of the average concentration of respirable dust during a shift.

Although single-shift respirable dust sampling would be most compatible with this single-shift standard, Congress recognized that variability in sampling results could render single-shift samples insufficient for compliance determinations. Consequently, Congress defined "average concentration" in section 202(f) of the 1969 Coal Act which is also retained in the 1977 Act. That section provides that "* * * the term 'average concentration' means a determination which accurately represents the atmospheric conditions with regard to respirable dust to which each miner in the active workings of a mine is exposed (1) as measured, during an 18 month period following the date of enactment of this Act, over a number of continuous production shifts to be determined by the Secretary and Secretary of Health, Education, and Welfare, and (2) as measured thereafter, over a single shift only, unless the Secretary and Secretary of Health, Education, and Welfare, find, in accordance with the provisions of Section 101 of this Act, that such single shift measurement will not, after applying valid statistical techniques to such measurement, accurately represent such atmospheric conditions during such shift."

The Secretary of the Interior and Secretary of Health, Education, and Welfare conducted continuous multi-shift sampling and single-shift sampling and, after applying valid statistical techniques, determined that a single-shift respirable dust sample should not be relied upon for compliance determinations when the respirable dust concentration being measured was near 2.0 mg/m^3. Accordingly, the Secretary of the Interior and Secretary of Health, Education, and Welfare prescribed consecutive multi-shift samples to enforce the respirable dust standard.

MSHA does not believe that Congress contemplated any further accounting for variability in sampling results. Moreover, further accounting for any remaining variability in sampling results as suggested by the commenters would expressly permit average concentrations of respirable dust exceeding 2.0 mg/m^3 in the mine atmosphere during a shift. Such a provision in the final rule would be contrary to the congressional mandate that operators continuously maintain the average concentration of respirable dust at or below the prescribed standard. The legislative history of the Coal Act is replete with congressional expression that the 2.0 mg/m^3 respirable dust standard be strictly adhered to and enforced. (*See:* S. Rep. No. 91–411, 91st Cong., 1st Sess. 47 (1969)). In addition, referencing a respirable dust standard higher than 2.0 mg/m^3 to determine compliance would ignore the possibility that sampling results may show concentrations lower than were actually present in the mine atmosphere. Therefore, any variability in sampling results remaining after averaging together consecutive multi-shift samples and using improved sampling, maintenance and calibration procedures under the rule cannot be resolved by implementing a higher respirable dust standard for purposes of compliance determinations. Accordingly, the final rule minimizes the potential for variability in sampling results and enforcement action will be taken by MSHA based on these sampling results.

Several commenters addressing the proposal for designated area sampling objected to MSHA issuing citations for violation of the respirable dust standards on the basis of area sampling.

These commenters argued that the respirable dust standard as set forth in the Act requires miners to be sampled personally to determine the average concentration of respirable dust during a shift to which the individual miner was exposed. Therefore, it was argued, no compliance determination could properly be based on samples which measured the average concentration of respirable dust during a shift in particular locations in the mine where miners work or travel, since this would not show an individual miner's exposure for the duration of the shift.

MSHA believes that the Act supports finding violations of the respirable dust standards based on area sampling. Section 202(b)(2) of the Act requires operators to "* * * continuously maintain the average concentration of respirable dust in the mine atmosphere during each shift to which each miner in the active workings is exposed at or below 2.0 milligrams per cubic meter of air." The purpose of this provision, as set forth in section 201(b) of the Act, is to ensure that "* * * the working conditions in each underground coal mine are sufficiently free of respirable dust concentrations in the mine atmosphere to permit each miner the opportunity to work underground during the period of his entire adult working life without incurring any disability from pneumoconiosis or any other occupation-related disease during or at the end of such period." MSHA believes that the language of these provisions of the Act authorizes finding a violation when the average concentration of respirable dust exceeds the standard at any location in the active workings of a mine. The Act clearly speaks in terms of the "mine atmosphere" and requires operators to continuously maintain the quality of air to which miners are exposed. Under the final rule, designated area samples are required to be taken in the "active workings," which is defined as any place in a coal mine where miners are normally required to work or travel. Therefore, miners clearly are exposed to the mine atmosphere measured by designated area samples.

Basing compliance determinations on samples taken at particular locations in a mine that measure the respirable dust concentrations in the mine atmosphere through which miners normally travel or in which miners work is not new under the final rule nor is it peculiar to designated area sampling. Samples taken at the working face for the high risk occupation under the existing respirable dust sampling program also measure the mine atmosphere in locations in the active workings, rather than the exposure of any individual miner for the duration of a shift. For example, the operator of a continuous mining machine is normally deemed to be the occupation with the greatest dust exposure at the working face and a sampling device is placed on the continuous mining machine operator, or near the operator's normal work position. This sample measures the mine atmosphere in the area of that work position. If samples show that over the course of a shift the average concentration of respirable dust in the mine atmosphere at this location exceeded the standard, then this condition would constitute a violation. This method of area sampling at the working face is continued under the final rule by providing designated occupation sampling in each mechanized mining unit.

MSHA also believes that enforcement of the respirable dust standards based on area sampling will effectively serve the health protection goal of achieving and continuously maintaining good air quality in the active workings of mines. The results of personal samples would not be useful to pinpoint the source of dust concentrations measured during a shift due to the movement of miners through various areas of the mine in the course of performing their work. With area sampling results, however, respirable dust generation sources can be identified and monitored. If area samples show respirable dust concentrations exceeding the applicable standard, abatement of the condition can be more readily and permanently achieved by the operator. In this manner, MSHA believes that appropriate respirable dust control measures can be made an integral part of each operator's mining system.

Several commenters questioned the effects of the proposal to reduce sampling to five samples on a bimonthly schedule. The existing respirable dust sampling program which this final rule amends was based on ten samples collected and submitted each month.

MSHA evaluated the effect of reducing the number of required shift samples from ten to five statistically and empirically and found no significant change in the number and confidence level of compliance decisions. The statistical evaluation showed that the relative change in the confidence level for a compliance decision decreased approximately five percent when the number of samples is reduced from ten to five. The empirical analysis showed that compliance decisions decreased less than three percent when the average concentrations was determined from five samples.

MSHA also considered the effect on the overall respirable dust monitoring program of reducing the number of samples. Reducing the number of required shift samples from ten to five will permit more rapid analysis of samples by MSHA, resulting in a rapid return of this information to the operator and prompt abatement of violations of the respirable dust standard. Prompt abatement of violations will reduce the exposure of miners to excessive dust concentrations and therefore improve miner health protection. In addition, MSHA believes that because miners will be sampled less repetitively under this rule, there will be greater miner acceptance of the sampling program. For these reasons the proposal to reduce the number of samples from ten to five is adopted in the final rule.

The effects of the proposal to reduce the frequency of sampling from monthly to bimonthly have also been evaluated. MSHA statistics indicate that nearly 74 percent of all underground coal mine sections were determined to be in compliance with the respirable dust standard for the entire year of 1977. In addition, a significant portion of the remaining 26 percent were found out of compliance only once. As a result, most operators during 1977 were permitted under the existing regulation to use the alternating (bimonthly) sampling cycle. In view of this, MSHA believes that proposed bimonthly sampling cycle would not reduce miner health protection. It should also be noted that sampling under the final rule is expanded to areas of the mine outby the working face, affording miners increased health protection. For these reasons bimonthly sampling is retained in the final rule.

A few commenters suggested that operators of mines with 40 or fewer miners be permitted under the rule to collect and submit fewer samples. MSHA is not convinced that the number of samples required under an effective respirable dust monitoring program can reasonably be related to mine size. Moreover, the significant reduction in the number and frequency of the samples required for all mines was a major aspect of the proposed rule. Accordingly, the final rule does not permit operators of small mines to collect and submit fewer samples.

Under the proposed rule, bimonthly sampling of mechanized mining units and designated areas was required to be done during the first month of each bimonthly period. The purpose of this proposed requirement was to ensure that operators had ample time remaining

to submit additional samples during a bimonthly period in the event samples were voided by MSHA. Samples may be voided by MSHA under the final rule if, for example, there has been insufficient production of material during sampling. Sampling during the first month of each bimonthly period would also take advantage of the staggered bimonthly sampling periods for mechanized mining units and designated areas such that an operator could collect and submit one type of sample each month.
Commenters, nevertheless, objected to a specific requirement in the rule that bimonthly sampling be done in the first month of each bimonthly period. This requirement has been deleted from the final rule. However, MSHA recommends that operators collect and submit bimonthly samples during the first month of each bimonthly period to the extent practicable in order to protect against the possibility of failing to meet the bimonthly sampling requirements due to voided samples. Failure to meet the bimonthly sampling requirements would constitute a violation under the final rule.

Commenters also objected to the proposed rule requirement that initial bimonthly sampling of new or reactivated mechanized mining units and designated areas begin on the first production day after the unit or area is placed in production status.
Commenters objected that "production status" and "production day" were not defined in the proposed rule.
Commenters also suggested that initial bimonthly sampling of new or reactivated mechanized mining units and designated areas should be delayed sufficiently to allow time for activities in the unit or area to normalize before samples are collected. The terms "production status" and "production day" have been deleted from the final rule. Under the final rule, the operator is required to meet the sampling requirements for the bimonthly period in which the first "production shift" occurs for a new or reactivated mechanized mining unit or designated area, provided there is sufficient time in the bimonthly period to take the required five valid samples. MSHA will make this determination on a case-by-case basis.

Several commenters objected to the proposal that samples with respirable dust concentrations greater than 2.5 milligrams per cubic meter of air would be considered in determining the average concentration of respirable dust for a mechanized mining unit, even though a "normal production shift" was not achieved. The purpose of requiring respirable dust samples to be collected during a "normal production shift" is to assure that respirable dust sampling is conducted when dust generation sources are active. If respirable dust is present in concentrations greater than 2.5 mg/m^3, it is apparent that some significant dust generation sources are active. Accordingly, this provision of the proposed rule is retained.

A few commenters questioned the proposed provision that respirable dust sampling devices be attached to miners in designated occupations. Commenters indicated that currently approved sampling devices can be cumbersome to wear under certain circumstances. The proposed rule specifically provided that sampling devices may be attached to miners or alternatively be placed at specified locations near the normal work position for the designated occupations, unless otherwise directed by an authorized representative of the Secretary. The proposed rule did not require sampling devices be attached to miners. This aspect of the proposed rule is retailed with only a minor change providing that the District Manager, rather than any authorized representative of the Secretary, may direct placement of sampling devices in locations other than those provided by the final rule.

Several commenters also questioned the proposed rule requirement that identification numbers be assigned to each mechanized mining unit.
Commenters suggested that identification numbers could instead be assigned to each working section. A fundamental aspect of the final rule is that each mechanized mining unit in a mine be sampled. This is accomplished under the rule by collecting samples from a designated occupation in each mechanized mining unit. Designated occupation samples then need to be related to the mechanized mining unit represented by the samples to ensure that all mechanized mining units are sampled and that the designated occupation samples for each individual mechanized mining unit are analyzed together. The final rule therefore retains the proposed requirement that each mechanized mining unit be identified.

Section 70.209

Several of the comments received objected to the proposed requirement that samples be transmitted to MSHA within 24 hours after the end of each sampling shift suggesting this could be burdensome for some operators. MSHA has received no information to support the suggestion that additional time is necessary. Moreover, it is important to the efficiency of the revised respirable dust sampling program that samples be promptly transmitted to MSHA. Accordingly, the final rule requires operators to transmit samples to MSHA within 24 hours after the end of each sampling shift.

Commenters also objected to the proposed rule provision that all respirable dust samples collected by operators would be considered by MSHA to be taken to fulfill the requirements of 30 CFR Parts 70, 71 or 90. Under the proposed rule, samples to be used by operators for other purposes would have to be identified in writing by the operator to the District Manager prior to the intended sampling shift. The purpose of this requirement, which is retained in the final rule, is to maintain the integrity of the sampling program. Respirable dust sampling by operators for purposes other than submission to MSHA is not precluded by this provision. The final rule requires only that any such samples be identified in writing to the District Manager according to each filter cassette identification number, prior to their intended use by the operator. No evidence was received indicating that this requirement will impose a hardship upon operators.

A few commenters also objected to the proposed requirement that samples submitted by operators to MSHA for abatement purposes be sent to a different address than routine samples. Under the final rule, all samples submitted by operators are required to be sent to MSHA's Respirable Dust Processing Laboratory in Pittsburgh, Pennsylvania, unless another address is designated by the District Manager. This latter requirement of the final rule anticipates equipping MSHA's district offices with facilities for dust sample processing in order to expedite abatement sampling results.

Section 70.210

Several of the comments received objected to the proposed requirement that results of MSHA's respirable dust sample analysis be posted by operators on the mine bulletin board for at least 31 days. This posting requirement is designed to provide miners ready access to current information as to respirable dust conditions in the mine. The data reported to the operator will not contain information identifying individual miners. MSHA has received no information indicating that posting this information would be contrary to the best interests of miners or burdensome for operators. Therefore, the proposed posting requirement is adopted in the final rule.

IV. Effect on Existing Rules

This final rule substantially revises the existing Part 70 procedure for operator sampling of respirable dust in underground coal mines. To effect an orderly transition from the old sampling program to the new sampling program, the existing operator sampling requirements in Part 70 are suspended as of September 1, 1980. On and after September 1, 1980, operators are not required to collect respirable dust samples until the effective date of this rule, which is November 1, 1980. Only the operator sampling requirements are suspended. Operators will be required to continue to maintain compliance with the respirable dust standard and all other provisions of Part 70.

Respirable dust samples collected in accordance with Part 70 before September 1, 1980, are required to be submitted to MSHA and will be analyzed for compliance with the respirable dust standard. Citations and orders involving noncompliance with any provision of Part 70 issued or outstanding after September 1, 1980, will continue in effect according to their terms unless modified by MSHA.

Drafting Information

The principal persons responsible for preparing this final rule are: Joseph A. Lamonica and Glenn R. Tinney, Division of Health, Mine Safety and Health Administration; Frank A. White, Office of Standards, Regulations and Variances, Mine Safety and Health Administration; and Edward P. Clair and Edward C. Hugler, Division of Mine Safety and Health, Office of the Solicitor, Department of Labor.

Regulatory Analysis

It has been determined that a regulatory analysis is not required for this rule under the Department of Labor's final guidelines for implementing Executive Order 12044 (44 FR 5570, January 26, 1979). It is estimated that the changes in the sampling requirements contained in this rule will result in a net savings to the coal industry of approximately 2 million dollars during the first year.

Dated March 28, 1980.

Robert B. Lagather,

Assistant Secretary for Mine Safety and Health.

1. Part 70 of Subchapter O, Chapter I, Title 30, Code of Federal Regulations, is amended by revising Subparts A, B, C and E as set forth below:

PART 70—MANDATORY HEALTH STANDARDS—UNDERGROUND MINES

Subpart A—General

Sec.
70.1 Scope.
70.2 Definitions.

Subpart B—Dust Standards

70.100 Respirable dust standards.
70.101 Respirable dust standard when quartz is present.

Subpart C—Sampling Procedures

70.201 Sampling; general requirements.
70.202 Certified person; sampling.
70.203 Certified person; maintenance and calibration.
70.204 Approved sampling devices; maintenance and calibration.
70.205 Approved sampling devices; operation; air flowrate.
70.206 Approved sampling devices; equivalent concentrations.
70.207 Bimonthly sampling; mechanized mining units.
70.208 Bimonthly sampling; designated areas.
70.209 Respirable dust samples; transmission by operator.
70.210 Respirable dust sample; report to operator; posting.
70.220 Status change reports.

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Subpart E—Dust From Drilling Rock

70.400 Dust from drilling rock; control.
70.400–1 Dust from drilling rock; approved devices.
70.400–2 Dust from drilling rock; water.
70.400–3 Dust from drilling rock; ventilation.

* * * * *

Authority: Sections 101 and 103(h) of the Federal Mine Safety and Health Act of 1977, Pub. L. 91–173 as amended by Pub. L. 95–164, 91 Stat. 1291 and 1299 (30 U.S.C. 811 and 813(h)).

Subpart A—General

§ 70.1 Scope.

This Part 70 sets forth mandatory health standards for each underground coal mine subject to the Federal Mine Safety and Health Act of 1977.

§ 70.2 Definitions.

For the purpose of this Part 70, the term:

(a) "Act" means the Federal Mine Safety and Health Act of 1977, Pub. L. 91–173, as amended by Pub. L. 95–164.

(b) "Active workings" means any place in a coal mine where miners are normally required to work or travel.

(c) "Certified person" means an individual certified by the Secretary in accordance with § 70.202 (Certified person; sampling) to take respirable dust samples required by this part or certified in accordance with § 70.203 (Certified person; maintenance and calibration) to perform the maintenance and calibration of respirable dust sampling equipment as required by this part.

(d) "Concentration" means a measure of the amount of a substance contained per unit volume of air.

(e) "Designated area" means an area of a mine identified by the operator in the plan required under § 75.316 (Ventilation system and methane and dust control plan) of this title and approved by the District Manager.

(f) "Designated occupation" means the occupation on a mechanized mining unit that has been determined by results of respirable dust samples to have the greatest respirable dust concentration.

(g) "District Manager" means the manager of the Coal Mine Safety and Health District in which the mine is located.

(h) "Mechanized mining unit" means: (1) a unit of mining equipment including hand loading equipment used for the production of material; or (2) a specialized unit which utilizes mining equipment other than specified in § 70.207(e) (Bimonthly sampling; mechanized mining units).

(i) "MRE instrument" means the gravimetric dust sampler with a four channel horizontal elutriator developed by the Mining Research Establishment of the National Coal Board, London, England.

(j) "MSHA" means the Mine Safety and Health Administration of the Department of Labor.

(k) "Normal production shift" means (1) a production shift during which the amount of material produced in a mechanized mining unit is at least 50 percent of the average production reported for the last set of five valid samples; or (2) a production shift during which any amount of material is produced by a new mechanized mining unit, until a set of five valid samples is taken.

(l) "Production shift" means (1) with regard to a mechanized mining unit, a shift during which material is produced, or (2) with regard to a designated area of a mine, a shift during which material is produced and routine day-to-day activities are occurring in the designated area.

(m) "Quartz" means crystalline silicon dioxide (SiO_2) not chemically combined with other substances and having a distinctive physical structure.

(n) "Respirable dust" means dust collected with a sampling device approved by the Secretary and the Secretary of Health, Education, and Welfare in accordance with Part 74 (Coal Mine Dust Personal Sampler Units) of this title. Sampling device approvals issued by the Secretary of the Interior and Secretary of Health,

Education, and Welfare are continued in effect.

(o) "Secretary" means the Secretary of Labor or his delegate.

(p) "Valid respirable dust sample" means a respirable dust sample collected and submitted as required by this part, and not voided by MSHA.

Subpart B—Dust Standards

§ 70.100 Respirable dust standards.

(a) Each operator shall continuously maintain the average concentration of respirable dust in the mine atmosphere during each shift to which each miner in the active workings of each mine is exposed at or below 2.0 milligrams of respirable dust per cubic meter of air as measured with an approved sampling device and in terms of an equivalent concentration determined in accordance with § 70.206 (Approved sampling devices; equivalent concentrations).

(b) Each operator shall continuously maintain the average concentration of respirable dust within 200 feet outby the working faces of each section in the intake airways at or below 1.0 milligrams of respirable dust per cubic meter of air as measured with an approved sampling device and in terms of an equivalent concentration determined in accordance with § 70.206 (Approved sampling devices; equivalent concentrations).

§ 70.101 Respirable dust standard when quartz is present.

When the respirable dust in the mine atmosphere of the active workings contains more than 5 percent quartz, the operator shall continuously maintain the average concentration of respirable dust in the mine atmosphere during each shift to which each miner in the active workings is exposed at or below a concentration of respirable dust, expressed in milligrams per cubic meter of air as measured with an approved sampling device and in terms of an equivalent concentration determined in accordance with § 70.206 (Approved sampling devices; equivalent concentrations), computed by dividing the percent of quartz into the number 10.

Example: The respirable dust associated with a mechanized mining unit or a designated area in a mine contains quartz in the amount of 20%. Therefore, the average concentration of respirable dust in the mine atmosphere associated with that mechanized mining unit or designated area shall be continuously maintained at or below 0.5 milligrams of respirable dust per cubic meter of air (10/20=0.5 mg/m³).

Subpart C—Sampling Procedures

§ 70.201 Sampling; general requirements.

(a) Each operator shall take respirable dust samples of the concentration of respirable dust in the active workings of the mine as required by this part with a sampling device approved by the Secretary and the Secretary of Health, Education, and Welfare under Part 74 (Coal Mine Dust Personal Sampler Units) of this title.

(b) Sampling devices shall be worn or carried directly to and from the mechanized mining unit or designated area to be sampled and shall be operated portal to portal. Sampling devices shall remain operational during the entire shift or for 8 hours, whichever time is less.

(c) Upon request from the District Manager, the operator shall submit the date on which collecting any respirable dust samples required by this part will begin.

(d) During the time for abatement fixed in a citation for violation of § 70.100 (Respirable dust standards) or § 70.101 (Respirable dust standard when quartz is present), the operator shall take corrective action to lower the concentration of respirable dust to within the permissible concentration and then sample each production shift until five valid respirable dust samples are taken.

§ 70.202 Certified person; sampling.

(a) The respirable dust sampling required by this part shall be done by a certified person.

(b) To be certified, a person shall pass the MSHA examination on sampling of respirable coal mine dust.

(c) A person may be temporarily certified by MSHA to take respirable dust samples if the person receives instruction from an authorized representative of the Secretary in the methods of collecting and submitting samples under this rule. The temporary certification shall be withdrawn if the person does not successfully complete the examination conducted by MSHA on sampling of respirable coal mine dust within six months from the issue date of the temporary certification.

§ 70.203 Certified person; maintenance and calibration.

(a) Approved sampling devices shall be maintained and calibrated by a certified person.

(b) To be certified, a person shall pass the MSHA examination on maintenance and calibration procedures for respirable dust sampling equipment.

(c) A person may be temporarily certified by MSHA to maintain and calibrate approved sampling devices if the person receives instruction from an authorized representative of the Secretary in the maintenance and calibration procedures for respirable dust sampling equipment under this rule. The temporary certification shall be withdrawn if the person does not successfully complete the examination conducted by MSHA on maintenance and calibration procedures within six months from the issue date of the temporary certification.

§ 70.204 Approved sampling devices; maintenance and calibration.

(a) Approved sampling devices shall be maintained as approved under Part 74 (Coal Mine Dust Personal Sampler Units) of this title and calibrated in accordance with MSHA Informational Report No. 1121, "Standard Calibration and Maintenance Procedures for Wet Test Meters and Coal Mine Respirable Dust Samplers (Supersedes IR 1073)," by a person certified in accordance with § 70.203 (Certified person; maintenance and calibration).

(b) Approved sampling devices shall be calibrated at the flowrate of 2.0 liters of air per minute, or at a different flowrate as prescribed by the Secretary and the Secretary of Health, Education, and Welfare for the particular device, before they are put into service and at intervals not to exceed 200 hours of operating time thereafter.

(c) A calibration mark shall be placed on the flowmeter of each approved sampling device to indicate the proper position of the float when the sampler is operating at a flowrate of 2.0 liters of air per minute or other flowrate prescribed by the Secretary and the Secretary of Health, Education, and Welfare for the particular device. The sandard to denote proper flow is when the lowest part of the float is tangent to the top of the calibration mark.

(d) Approved sampling devices shall be tested and examined immediately before each sampling shift and necessary external maintenance shall be performed to assure that the sampling devices are clean and in proper working condition by a person certified in accordance with § 70.202 (Certified person; sampling) or § 70.203 (Certified person; maintenance and calibration). This testing and examination shall include the following:

(1) Testing the voltage of each battery while under actual load to assure the battery is fully charged. The voltage for nickel cadmium cell batteries shall not be lower than the product of the number of cells in the battery pack multiplied by 1.25. The voltage for other than nickel cadmium cell batteries shall not be

lower than the product of the number of cells in the battery pack multiplied by the manufacturer's nominal voltage per cell value;

(2) Examination of all components of the cyclone to assure that they are clean and free of dust and dirt;

(3) Examination of the inner surface of the cyclone on the approved sampling device to assure that it is free of scoring;

(4) Examination of the external tubing on the approved sampling device to assure that it is clean and free of leaks; and,

(5) Examination of the clamping and positioning of the cyclone body, vortex finder and cassette to assure that they are rigid, in alignment, and firmly in contact.

(e) In accordance with 5 U.S.C. 552(a), MSHA Informational Report No. 1121 referenced in paragraph (a) of this section is hereby incorporated by reference and made a part of this section as if it was set forth in full. The incorporated publication is available without charge at each Coal Mine Safety and Health District and Subdistrict office of MSHA and is on file at the Office of the Federal Register Information Center. Any future amendments to MSHA Informational Report No. 1121 will be announced in the **Federal Register**. This incorporation by reference was approved March 25, 1980, by the Director of the Office of the Federal Register.

§ 70.205 Approved sampling devices; operation; air flowrate.

(a) Sampling devices approved in accordance with Part 74 (Coal Mine Dust Personal Sampler Units) of this title shall be operated at the flowrate of 2.0 liters of air per minute, or at a different flowrate as prescribed by the Secretary and the Secretary of Health, Education, and Welfare for the particular device.

(b) Except as provided in paragraph (d) of this section, each approved sampling device shall be examined each shift by a person certified in accordance with § 70.202 (Certified person; sampling) during the second hour after being put into operation to assure that the sampling device is operating properly and at the proper flowrate. If the proper flowrate is not maintained, necessary adjustments shall be made by the certified person.

(c) Each sampling device shall be examined each shift by a person certified in accordance with § 70.202 (Certified person; sampling) during the last hour of operation to assure that the sampling device is operating properly and at the proper flowrate. If the proper flowrate is not maintained, the respirable dust sample shall be transmitted to MSHA with a notation by the certified person on the dust data card stating that the proper flowrate was not maintained.

(d) Paragraph (b) of this section shall not apply if the approved sampling device is being operated in a breast or chamber of an anthracite coal mine where the full box mining method is used.

§ 70.206 Approved sampling devices; equivalent concentrations.

The concentration of respirable dust shall be determined by dividing the weight of dust in milligrams collected on the filter of an approved sampling device by the volume of air in cubic meters passing through the filter and then converting that concentration to an equivalent concentration as measured with an MRE instrument. To convert a concentration of respirable dust as measured with an approved sampling device to an equivalent concentration of respirable dust as measured with an MRE instrument, the concentration of respirable dust measured with the approved sampling device shall be multiplied by the constant factor prescribed by the Secretary for the approved sampling device used, and the product shall be the equivalent concentration as measured with an MRE instrument.

§ 70.207 Bimonthly sampling; mechanized mining units.

(a) Each operator shall take five valid respirable dust samples from the designated occupation in each mechanized mining unit during each bimonthly period beginning with the bimonthly period of November 1, 1980. Designated occupation samples shall be collected on consecutive normal production shifts or normal production shifts each of which is worked on consecutive days. The bimonthly periods are:

January 1–February 28 (29)
March 1–April 30
May 1–June 30
July 1–August 31
September 1–October 31
November 1–December 31

(b) When the respirable dust standard is changed in accordance with § 70.101 (Respirable dust standard when quartz is present), respirable dust sampling of mechanized mining units shall begin on the first production shift during the next bimonthly period following notification of such change from MSHA.

(c) Upon issuance of a citation for a violation of § 70.100(a) (Respirable dust standards) or § 70.101 (Respirable dust standard when quartz is present) involving a designated occupation in a mechanized mining unit, paragraphs (a) and (b) of this section shall not apply to that unit until the violation is abated in accordance with § 70.201(d) (Sampling; general requirements).

(d) Each designated occupation sample shall be taken on a normal production shift. If a normal production shift is not achieved, the sample for that shift may be voided by MSHA. However, any sample, regardless of production, with a respirable dust concentration greater than 2.5 milligrams per cubic meter of air will be used to determine the average concentration for that mechanized mining unit.

(e) Unless otherwise directed by the District Manager, the designated occupation samples shall be taken by placing the sampling device as follows:

(1) *Conventional section using cutting machine.* On the cutting machine operator or on the cutting machine within 36 inches inby the normal working position;

(2) *Conventional section shooting off the solid.* On the loading machine operator or on the loading machine within 36 inches inby the normal working position;

(3) *Continuous mining section other than auger-type.* On the continuous mining machine operator or on the continuous mining machine within 36 inches inby the normal working position;

(4) *Continuous mining machine; auger-type.* On the jacksetter who works nearest the working face on the return air side of the continuous mining machine or at a location that represents the maximum concentration of dust to which the miner is exposed;

(5) *Scoop section using cutting machine.* On the cutting machine operator or on the cutting machine within 36 inches inby the normal working position;

(6) *Scoop section, shooting off the solid.* On the coal drill operator or on the coal drill within 36 inches inby the normal working position;

(7) *Longwall section.* On the miner who works nearest the return air side of the longwall working face or along the working face on the return side within 48 inches of the corner;

(8) *Hand loading section with a cutting machine.* On the cutting machine operator or on the cutting machine within 36 inches inby the normal working position;

(9) *Hand loading section shooting off the solid.* On the hand loader exposed to the greatest dust concentration or at a location that represents the maximum concentration of dust to which the miner is exposed;

(10) *Anthracite mine sections.* On the hand loader exposed to the greatest dust concentration or at a location that represents the maximum concentration of dust to which the miner is exposed.

(f)(1) Each mechanized mining unit will be assigned a four digit identification number by MSHA. The mechanized mining unit shall retain that identification number regardless of where the unit relocates within the mine.

(2) When two sets of mining equipment are provided in a series of working places and only one production crew is employed at any given time on either set of mining equipment, the two sets of equipment shall be identified as a single mechanized mining unit. When two or more mechanized mining units are simultaneously engaged in the production of material within the same working section, each such mechanized mining unit shall be identified separately.

§ 70.208 Bimonthly sampling; designated areas.

(a) Each operator shall take one valid respirable dust sample from each designated area on a production shift during each bimonthly period beginning with the bimonthly period of December 1, 1980. The bimonthly periods are:

February 1–March 31
April 1–May 31
June 1–July 31
August 1–September 30
October 1–November 30
December 1–January 31

(b) When the respirable dust standard is changed in accordance with § 70.101 (Respirable dust standard when quartz is present), respirable dust sampling of designated areas shall begin on the first production shift during the next bimonthly period following notification of such change from MSHA.

(c) Upon notification from MSHA that any respirable dust sample taken from a designated area to meet the requirements of paragraph (a) or (b) of this section exceeds the applicable standard in § 70.100 (Respirable dust standards) or § 70.101 (Respirable dust standard when quartz is present), the operator shall take five valid respirable dust samples from that designated area within 15 calendar days. The operator shall begin such sampling on the first day on which there is a production shift following the day of receipt of notification.

(d) Upon issuance of a citation for a violation of § 70.100 (Respirable dust standards) or § 70.101 (Respirable dust standard when quartz is present) involving a designated area, paragraphs (a), (b) and (c) of this section shall not apply to that designated area until the violation is abated in accordance with § 70.201(d) (Sampling; general requirements).

(e) Designated area samples shall be collected at locations to measure respirable dust generation sources in the active workings. The approved ventilation system and methane and dust control plan required by § 75.316 of this title shall show the specific locations where designated area samples will be collected. Each designated area will be assigned a four digit identification number by MSHA.

(f) MSHA approval of the operator's ventilation system and methane and dust control plan may be revoked based on samples taken by MSHA or in accordance with this Part 70.

§ 70.209 Respirable dust samples; transmission by operator.

(a) The operator shall transmit within 24 hours after the end of the sampling shift all samples collected to fulfill the requirements of this part in containers provided by the manufacturer of the filter cassette to: Respirable Dust Processing Laboratory, Pittsburgh Technical Support Center, 4800–D Forbes Avenue, Pittsburgh, Pennsylvania 15213.

Or to any other address designated by the District Manager.

(b) The operator shall not open or tamper with the seal of any filter cassette or alter the weight of any filter cassette before or after it is used to fulfill the requirements of this part.

(c) A person certified in accordance with § 70.202 (Certified person; sampling) shall properly complete the dust data card that is provided by the manufacturer for each filter cassette. The card shall have an identification number identical to that on the cassette used to take the sample and be submitted to MSHA with the sample. Each card shall be signed by the certified person and shall include that person's certification number. Respirable dust samples with data cards not properly completed will be voided by MSHA.

(d) All respirable dust samples collected by the operator shall be considered taken to fulfill the sampling requirements of Parts 70, 71 or 90 of this title, unless the sample has been identified in writing by the operator to the District Manager, prior to the intended sampling shift, as a sample to be used for purposes other than required by Parts 70, 71 or 90 of this title.

(e) Respirable dust samples received by MSHA in excess of those required by this part shall be considered invalid samples.

§ 70.210 Respirable dust samples; report to operator; posting.

(a) The Secretary shall provide the operator with a report of the following data on respirable dust samples as soon as practicable:

(1) The mine identification number;

(2) The mechanized mining unit or designated area within the mine from which the samples were taken;

(3) The concentration of respirable dust, expressed in milligrams per cubic meter of air, for each valid sample;

(4) The average concentration of respirable dust, expressed in milligrams per cubic meter of air, for all valid samples;

(5) The occupation code, where applicable; and,

(6) The reason for voiding any samples.

(b) Upon receipt, the operator shall post this data for at least 31 days on the mine bulletin board.

§ 70.220 Status change reports.

(a) If there is a change in operational status that affects the respirable dust sampling requirements of this part, the operator shall report the change in operational status of the mine, mechanized mining unit, or designated area to the MSHA District Office or to any other MSHA office designated by the District Manager. Status changes shall be reported in writing within 3 working days after the status change has occurred.

(b) Each specific operational status is defined as follows:

(1) Underground mine:

(i) *Producing*—has at least one mechanized mining unit producing material.

(ii) *Nonproducing*—no material is being produced.

(iii) *Abandoned*—the work of all miners has been terminated and production activity has ceased.

(2) Mechanized mining unit:

(i) *Producing*—producing material from a working section.

(ii) *Nonproducing*—temporarily ceased production of material.

(iii) *Abandoned*—permanently ceased production of material.

(3) Designated Area:

(i) *Producing*—activity is occurring.

(ii) *Nonproducing*—activity has ceased.

(iii) *Abandoned*—the dust generating source has been withdrawn and activity has ceased.

* * * * *

Subpart E—Dust From Drilling Rock

§ 70.400 Dust from drilling rock; control.

The dust resulting from drilling in rock shall be controlled by use of permissible dust collectors, or by water, or water with a wetting agent, or by ventilation, or by any other method or device approved by the Secretary which is as effective in controlling such dust.

§ 70.400–1 Dust from drilling rock; approved devices.

Dust collectors approved under Part 33 (Dust Collectors For Use In Connection With Rock Drilling In Coal Mines) of this title or under Bureau of Mine Schedule 25B are permissible dust collectors for the purpose of § 70.400 (Dust from drilling rock; control).

§ 70.400–2 Dust from drilling rock; water

Water used to control dust from drilling rock shall be applied through a hollow drill steel or stem or by the flooding of vertical drill holes in the floor.

§ 70.400–3 Dust from drilling rock; ventilation.

To adequately control dust from drilling rock, the air current shall be so directed that the dust is readily dispersed and carried away from the drill operator or any other workers in the area.

PART 11—RESPIRATORY PROTECTIVE DEVICES—TESTS FOR PERMISSIBILITY; FEES

2. Part 11 of Subchapter B, Chapter I, Title 30, Code of Federal Regulations is amended by revising paragraph (ee) of § 11.3 as follows:

§ 11.3 Definitions.

* * * * *

(ee) "Respirable dust" means dust collected with a sampling device approved by the Secretary and the Secretary of Health, Education, and Welfare in accordance with Part 74 (Coal Mine Dust Personal Sampler Units) of this title. Sampling device approvals issued by the Secretary of the Interior and Secretary of Health, Education, and Welfare are continued in effect.

(Sec. 101, Pub. L. 91–173 as amended by Pub. L. 95–164, 91 Stat. 1291 (30 U.S.C. 811))

PART 71—MANDATORY HEALTH STANDARDS—SURFACE WORK AREAS OF UNDERGROUND COAL MINES AND SURFACE MINES

3. Part 71 of Subchapter O, Chapter I, Title 30, Code of Federal Regulations is amended by revising paragraph (n) of § 71.2 as follows:

§ 71.2 Definitions.

* * * * *

(n) "Respirable dust" means dust collected with a sampling device approved by the Secretary and the Secretary of Health, Education, and Welfare in accordance with Part 74 (Coal Mine Dust Personal Sampler Units) of this title. Sampling device approvals issued by the Secretary of the Interior and Secretary of Health, Education, and Welfare are continued in effect.

(Sec. 101, Pub. L. 91–173 as amended by Pub. L. 95–164, 91 Stat. 1291 (30 U.S.C. 811))

PART 75—MANDATORY SAFETY STANDARDS—UNDERGROUND COAL MINES

4. Part 75 of Subchapter O, Chapter I, Title 30, Code of Federal Regulations is amended by revising paragraph (k) of § 75.2 as follows:

§ 75.2 Definitions.

* * * * *

(k) "Respirable dust" means dust collected with a sampling device approved by the Secretary and the Secretary of Health, Education, and Welfare in accordance with Part 74 (Coal Mine Dust Personal Sampler Units) of this title. Sampling device approvals issued by the Secretary of the Interior and Secretary of Health, Education, and Welfare are continued in effect.

(Sec. 101, Pub. L. 91–173 as amended by Pub. L. 95–164, 91 Stat. 1291 (30 U.S.C. 811))

PART 90—PROCEDURES FOR TRANSFER OF MINERS WITH EVIDENCE OF PNEUMOCONIOSIS

6. Part 90 of Subchapter O, Chapter I, Title 30, Code of Federal Regulations is amended by revising paragraph (g) of § 90.2 as follows:

§ 90.2 Definitions.

* * * * *

(g) "Respirable dust" means dust collected with a sampling device approved by the Secretary and the Secretary of Health, Education, and Welfare in accordance with Part 74 (Coal Mine Dust Personal Sampler Units) of this title. Sampling device approvals issued by the Secretary of the Interior and Secretary of Health, Education, and Welfare are continued in effect.

(Sec. 101, Pub. L. 91–173 as amended by Pub. L. 95–164, 91 Stat. 1291 (30 U.S.C. 811))

[FR Doc. 80–10127 Filed 4–7–80; 8:45 am]
BILLING CODE 4510–43–M

30 CFR Part 75

Ventilation System and Methane and Dust Control Plan

AGENCY: Mine Safety and Health Administration, Department of Labor.

ACTION: Final rule.

SUMMARY: The Department of Labor's mandatory standard on ventilation system and methane and dust control plans, Title 30, Code of Federal Regulations, § 75.316–1 is amended to conform to the requirement of 30 CFR § 70.208(e) regarding designated area sampling of respirable coal mine dust. The rule requires that operators include in the approved ventilation system and methane and dust control plan for each mine the locations in which designated area samples will be collected.

EFFECTIVE DATE: November 1, 1980.

FOR FURTHER INFORMATION CONTACT: Edward C. Hugler, Office of the Solicitor, Mine Safety and Health, Room 434, 4015 Wilson Boulevard, Arlington, Virginia 22203, Telephone 235–1157.

SUPPLEMENTARY INFORMATION: On November 16, 1977, the Mining Enforcement and Safety Administration (MESA), Department of the Interior, published in the **Federal Register** (42 FR 59294–59300) a notice proposing amendments to Part 11 of Subchapter B and Parts 70, 71, 75 and 90 of Subchapter O, Chapter I, Title 30, Code of Federal Regulations. The proposed amendments included revisions to the respirable dust sampling procedures in 30 CFR Part 70 for underground coal mines. As part of the area sampling procedures, it was proposed that operators indicate where designated area samples would be taken in the ventilation system and methane and dust control plan required for each mine. Part 70 is published as a final rule in Part II of today's **Federal Register** and retains this proposed requirement.

An approved ventilation system and methane and dust control plan is required by 30 CFR 75.316 for each underground coal mine. Section 75.316–1 prescribes the information the operator must include in each plan. This final rule amends § 75.316–1 to add the information requirement that the operator's plan include the specific locations where designated area samples will be taken for purposes of Part 70, respirable dust sampling in underground coal mines. The rule therefore conforms § 75.316–1 to the provisions of the final rule for Part 70.

Drafting Information

The principal person responsible for drafting this final rule is Edward C. Hugler, Division of Mine Safety and

Health, Office of the Solicitor, Department of Labor.

Regulatory Analysis

It has been determined that a regulatory analysis is not required for this rule under the Department of Labor's final guidelines for implementing Executive Order 12044 (44 FR 5570, January 26, 1979.

Dated March 28, 1980.

Robert B. Lagather,

Assistant Secretary for Mine Safety and Health.

1. Part 75 of Subchapter O, Chapter I, Title 30, Code of Federal Regulations, is amended by adding to § 75.316–1 a new paragrah (b)(2) as set forth below, and renumbering paragraphs (b)(2), (3) and (4) as paragraphs (b)(3), (4) and (5) respectively.

PART 75—MANDATORY SAFETY STANDARDS—UNDERGROUND COAL MINES

§ 75.316–1 Information to be submitted by the operator.

* * * * *

(b) * * *

(2) The specific locations in the mine where designated area samples for purposes of § 70.208 (Bimonthly sampling; designated areas) of this title will be collected, including the specific location of each sampling device.

(Sec. 101, Pub. L. 91–173 as amended by Pub. L. 95–164, 91 Stat. 1291 (30 U.S.C. 811))

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